

Snohomish County Assessor's Office

Residential Mass Appraisal Report

Residential Appraisal Management Countywide Report

Section B: Data and Analysis

Appraisal Date: **January 1, 2020 for 2021 Property Taxes**

Report Date: **July 7, 2020**

Prepared For: **Linda Hjelle**
 Snohomish County Assessor





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Introduction

Type of Report – Mass Appraisal Report

This document is a report of the Snohomish County Assessor's Mass Appraisal for the geographic area named in this report as required under Standard 6, Uniform Standards of Professional Appraisal Practice (USPAP).

This document is not intended to be a self-contained documentation of the mass appraisal but to summarize the methods and data used, and to guide the reader to other documents or files which were relied upon to perform the mass appraisal, which may include the following:

- Individual Property Records – Contained in Assessor's Property System Database/ProVal^{®1}
- Real Estate Sales File – Part of Assessor's Property System Database/ProVal[®]
- Land Sales and Model Calibration Spreadsheets including published 'Benchmark' tables
- Residential Cost Tables – Contained in Assessor's Property System Database/ProVal[®]
- Residential Depreciation Tables – Contained in the Assessor's Property System Database/ProVal[®]
- Residential Time Trend Study Spreadsheet(s)
- Revised Code of Washington (RCW) – Title 84²
- Washington Administrative Code (WAC) – WAC 458³
- Uniform Standards of Professional Appraisal Practice (USPAP) published by the Appraisal Standards Board of the Appraisal Foundation⁴
- Snohomish County Revaluation plan approved by the Washington State Department of Revenue March 5, 2015 and amended March 15, 2016
- County Assessor's Manual⁵ – Published by the Department of Revenue (DOR), November 2011
- Mass Appraisal Report data extracts and sales files
- Comparison to County Assessor Statistics Reports⁶

This mass appraisal report is a 'post-revaluation report card' on the performance of the valuation model(s) used. It is not a fully self-contained appraisal but rather a summary of the performance of the model for the geographic area(s) identified in the report. The summary statistics apply to the population of sales used as a whole and are not appropriate to apply to any specific property.

¹ ProVal[®] is property appraisal and valuation software used by the Assessor's office to record and access property records, and is a registered trademark of Thomson Reuters.

² <http://apps.leg.wa.gov/RCW/default.aspx?Cite=84>

³ <http://apps.leg.wa.gov/wac/default.aspx?cite=458>

⁴ <http://www.uspap.org/#/56/>

⁵ http://dor.wa.gov/docs/pubs/prop_tax/assessorrefmanual.doc

⁶ http://dor.wa.gov/content/AboutUs/StatisticsAndReports/stats_proptaxstats_Assessor.aspx

For example, this report may show that on average, property values increased or decreased x%. This cannot be construed to mean that all property values increased or decreased x%. While property values in a general geographic area may on average change by x%, individual properties may increase or decrease at greater or lesser amounts due to changes in property characteristics or localized market factors that do not affect the broader geographic area that this report covers.

Analyst Comments for This Report

Multifamily, Lakefront, Mobile homes in Parks, and Camping Club properties are scattered throughout the County, but are valued by one analyst. The analyst comments regarding these property types follow:

Multifamily Properties

Analyst Comments Regarding Value Model Calibration

The base House Type Models 2020 & 20201 and Depreciation Schedules 20 & 99 were used in valuation of all multifamily properties. The base countywide outbuilding rates were also used.

Analyst Comments Regarding Data Maintenance

Multifamily parcels were valued by cost approach. The income approach was considered, but not used, due to difficulty obtaining accurate financial data (such as rental and vacancy rates, expenses, NOI) from owners, and estimating the market value of owner-occupied units.

Lakefront Properties

Analyst Comments Regarding Value Model Calibration

The base House Type Models 2020 & 20201 and Depreciation Schedules 20 & 99 were used in valuation of all lakefront properties. The base countywide outbuilding rates were also used.

Analyst Comments Regarding Sales Used in Analysis

In the case of smaller lakes with very few sales in 2019, five years of sale data (2015 – 2019) were used in the analysis.

Mobile Home Parks

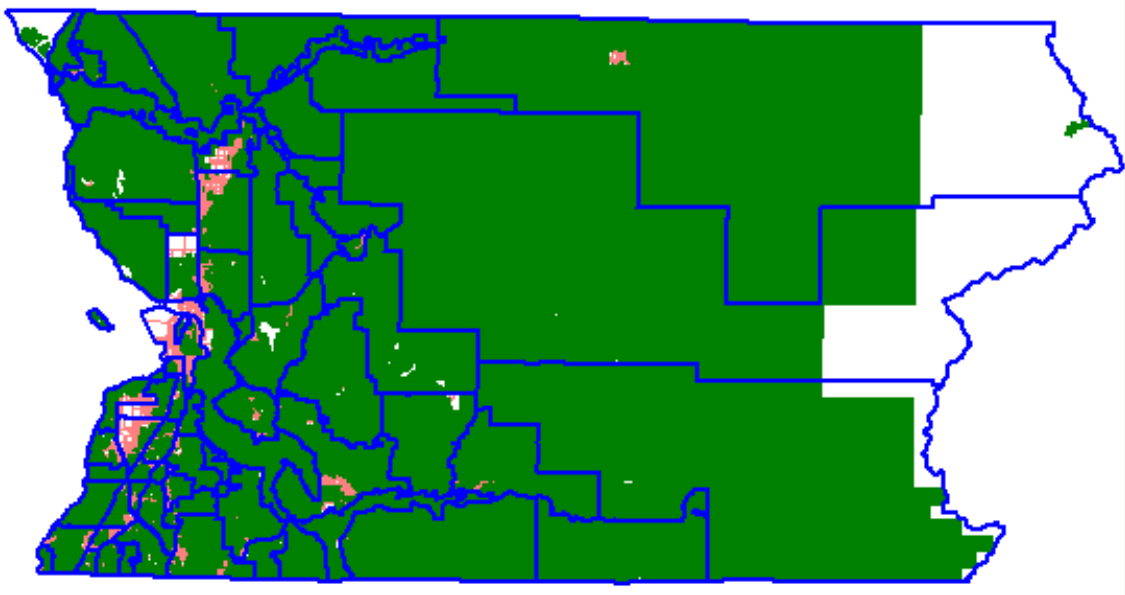
Analyst Comments Regarding Sales Used in Analysis

In the case of smaller Mobile Homes in Parks with very few sales in 2019, as many as five years of sale data (2015 – 2019) were used in the analysis.

Properties Appraised

Member Parcels Residential Appraisal Management

Region: Countywide



Legend

- Red:** Commercial Parcels (not part of this report)
- Green:** Member Parcels - Residential Management: Countywide
- Blue:** Benchmark Boundaries

The residential division of the Snohomish County Assessor's Office is responsible for the annual revaluation of all of the parcels denoted in **green**.

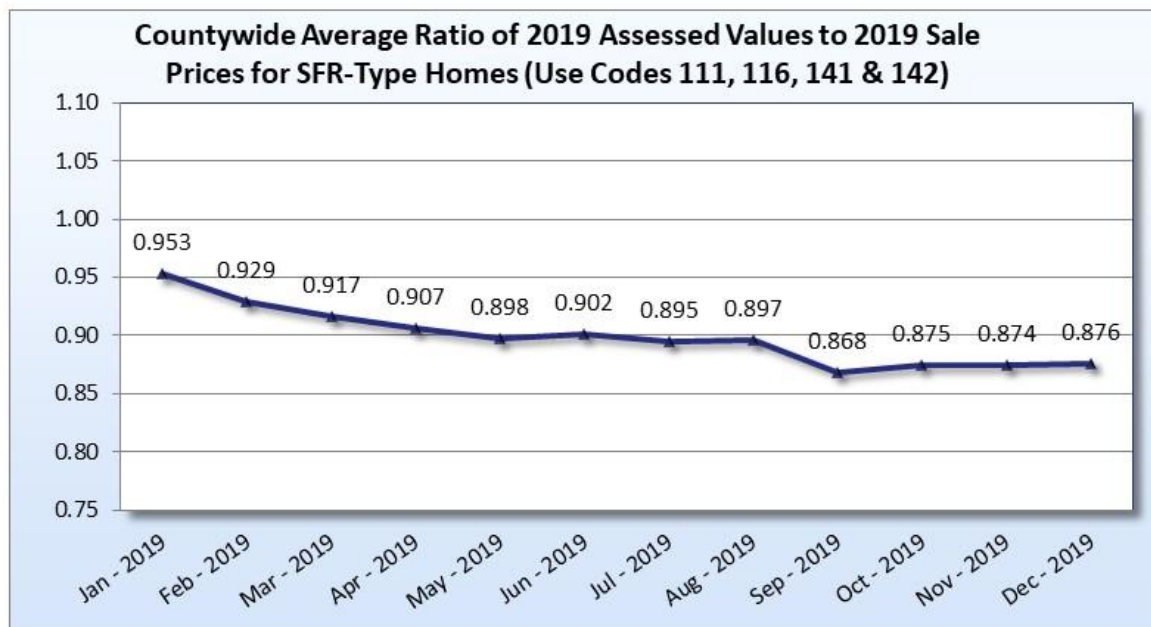
Snohomish County is bordered by Puget Sound and Island County (to the west), Skagit County (to the north), Chelan County (to the east) and King County (to the south).

Pre-2020 Revaluation Market Analysis

Preliminary to the initiation of the 2020 revaluation, ratio studies were conducted to measure the relationship of current assessed values (January 1, 2019 assessments) to 2019 sale prices, and to determine if property values were changing over time.

Please note that the following three studies include only single-family residences (Use codes 111, 116, 141, and 142), as this is the predominant property type in the residential appraisal management region, and of those types, only those sales that met the criteria listed in section “Appraisal Performance – Mass Appraisal Reports – Sales”⁷ were used in the analysis. These sales represent the market and overall residential market trend for Snohomish County.

The following chart summarizes both ratio and the change in ratio over time for single-family residences Countywide. If no revaluation occurred, on average, single-family residences would be assessed at 87.6% (as indicated by the December 2019 ratio). Declining ratios indicates rising sale prices.



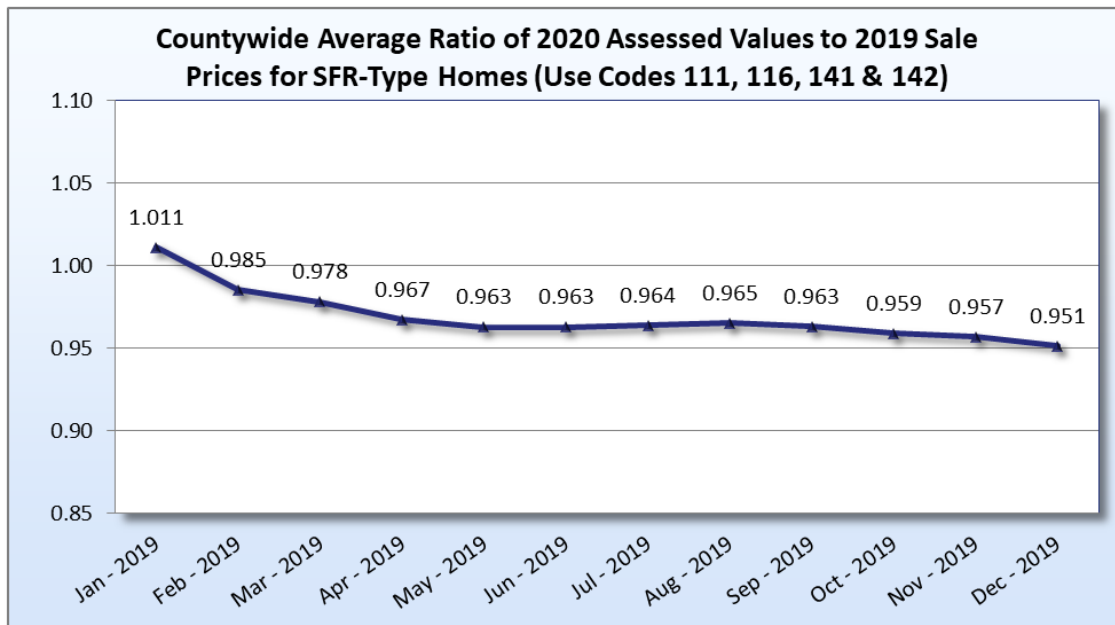
Note: A declining ratio over time indicates rising sales prices.

⁷ See Introduction and Summary section (Section A) of the overall report.



Post-Revaluation Ratio Study

The following chart summarizes the post-revaluation ratio and the change in ratio over time for single-family residences countywide. From the chart we can see that as a result of the revaluation, on average, single-family residences are assessed at 95.1% (December 2019 ratio).



Note: A declining ratio over time indicates rising sales prices.

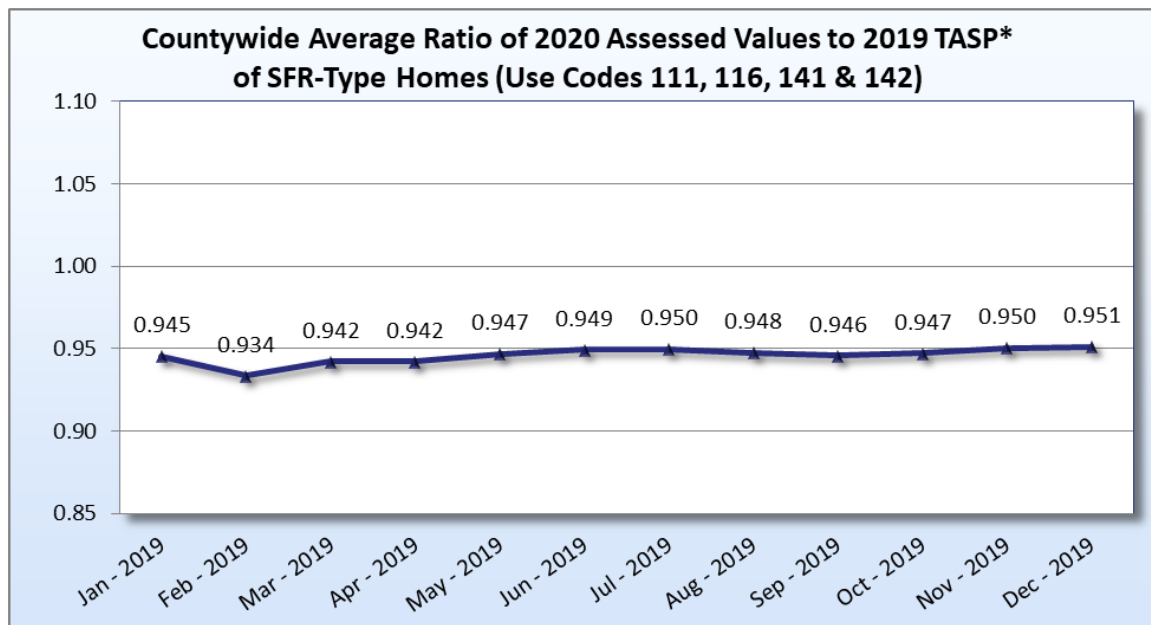


Adjusting For Market Changes over Time

The purpose of time-adjusting sale prices is to more accurately represent market changes over time. This allows sales occurring earlier in the year (or prior years) to be used in the analysis to determine the fair market value as of the assessment date.

For example, if a home sold on January 1, 2019 for \$100,000 and an identical home sold January 1, 2020 for \$112,000, this would indicate the market has increased 12% over that one year time period. The Time-Adjusted Sale Price (TASP) of the first house would be \$112,000 (\$100,000 plus 12%). Both houses would be assessed at \$112,000, and the Time-Adjusted Sale Ratio for both would be 1.00. Without the TASP adjustments, the ratios would be 1.12 for the earlier sale and 1.00 for the later sale.

The following chart summarizes 2020 assessed values to 2019 sale prices adjusted for market changes in 2019. This change is often referred to as 'time trend'.



* TASP – Time-adjusted Sale Price(s)

Appraisal Level and Uniformity

Non Time-Adjusted Sales Ratio Study

Study Period: January 1, 2019 through December 31, 2019

Number of Sales: 11,710

Pre-Revaluation Ratio

1/1/2019 Certified Value Compared to 2019 Sale Prices

Ratio Statistics for Certified Total/Consideration				
Mean	Median	Weighted Mean	Price Related Differential	Coefficient of Dispersion
0.895	0.905	0.891	1.004	9.00%

Post-Revaluation Ratio

1/1/2020 Calculated Values Compared to 2019 Sale Prices

Ratio Statistics for Calculated Total/Consideration				
Mean	Median	Weighted Mean	Price Related Differential	Coefficient of Dispersion
0.966	0.968	0.964	1.002	5.90%

The data used in this analysis were obtained from the active database.

This ratio study only includes sales where the property existed both in the prior assessment year and in the current assessment year, was 100% complete at the time of the analysis, sold for more than \$1,000, and the post-revaluation ratio was not an 'outlier' (< 0.25% or > 1.75%).

The pre-revaluation ratio is calculated by dividing the 2019 certified value by the 2019 sale price.

The post-revaluation ratio is calculated by dividing the 2020 pre-certification appraised value by the 2019 sale price (report data is extracted just prior to value certification).

The sale prices used in this ratio study have not been adjusted for changes in market conditions that occurred throughout the year. This ratio study includes ALL Property Class Codes, less excluded sales, and sales with no improvement or land value.⁸

A direct comparison of the pre-appraisal ratio and the post-appraisal ratio is inappropriate as the values used are from different points in time and the ratios, which are an average over the entire year of sales, do not reflect changes in market conditions over time.

⁸ See "Additional Sales Excluded" in Section A of this report.

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Data and Analysis

Time-Adjusted Sales Ratio Study (Single-family Residences)

Study Period: January 1, 2019 through December 31, 2019

Number of Sales: 11,110

Pre-Revaluation Ratio

1/1/2019 Certified Value Compared to 2019 Sale Prices

Ratio Statistics for Certified Total/TASP*				
Mean	Median	Weighted Mean	Price Related Differential	Coefficient of Dispersion
0.878	0.886	0.874	1.005	8.30%

**Time Adjusted Sale Price*

Post-Revaluation Ratio

1/1/2020 Calculated Values Compared to 2019 Sale Prices

Ratio Statistics for Calculated Total / TASP*				
Mean	Median	Weighted Mean	Price Related Differential	Coefficient of Dispersion
0.946	0.947	0.944	1.003	5.40%

**Time Adjusted Sale Price*

The data used in this analysis were obtained from the archived database. The archived database reflects the property characteristics at the time of sale.

This ratio study only includes sales where the property existed both in the prior assessment year and in the current assessment year, was 100% complete at the time of the analysis, sold for more than \$1,000, and the post-revaluation ratio was not an 'outlier' (< 0.25% or > 1.75%).

The pre-revaluation ratio is calculated by dividing the 2019 certified value by the 2019 time-adjusted sale price.

The post-revaluation ratio is calculated by dividing the 2020 pre-certification appraised value by the 2019 time-adjusted sale price (report data is extracted just prior to value certification).

This ratio study includes ONLY Single-family Residences (Property Class Codes 111, 116, 141 and 142), the most frequently occurring property types.

The sale prices used in the above ratio study have been adjusted for time.

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Residential Appraisal Management: Countywide



Data and Analysis

Coefficient of Price Related Bias (PRB)⁹

Countywide Ratio Statistics and PRB Time-Adjusted Ratios (Calculated Total AV / TASP)	
Sale Count	11,110
Mean	0.946
Median	0.947
Weighted Mean	0.944
Minimum Wtd Mean	0.476
Maximum Wtd Mean	1.489
Price Related Differential (PRD)	1.003
Coefficient of Dispersion (COD)	5.40%
PRB	0.038

The coefficient of Price-Related Bias for Snohomish County analyzed residential properties is within recommended limits. (-0.05 to 0.05)

Uniformity Among Strata Reconciliation

The mean assessment level for Residential Properties is 94.6 %. Using a 95 percent (two tailed) confidence interval the upper confidence limit for the level of residential property is 94.8% and the lower confidence limit for residential property is 94.5%.

Countywide Ratio Statistics for Calculated Total AV / TASP			
Residential Properties		95% Confidence Interval	
Descriptive Statistic	Value	Lower Bound	Upper Bound
Mean	0.946	0.945	0.948
Median	0.947	0.946	0.949
Weighted Mean	0.944	0.942	0.945
Price Related Differential	1.003		
Coefficient of Dispersion	5.40%		
Coefficient of Variation	7.20%		

The median assessment level for Residential Properties is 94.7% and the median assessment level for Commercial Properties is 97.5%. The two strata are within the acceptable range of 5%. Snohomish County is in compliance with the “Uniformity Among Strata requirement.”

⁹ Please see the detailed explanation for the derivation of the Price-Related Bias at the end of this document.

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Residential Appraisal Management: Countywide



Data and Analysis

Value Change Summary

The Summary of Value Change table below reflects the aggregate change in value for ALL parcels that existed in the study area at the time the study was conducted. Value Change and Percent (%) Change includes the value for new parcels that were created and assessed for the first time in the current assessment year that did not exist in the prior assessment year.

Property Class groups on the following table include the following property types:

Agriculture:	Farms General, Open Space Ag, Open Space General
Industrial:	Manufacturing Facilities
Commercial:	Retail, Schools and Churches
Residential:	Single-family Residences, Condominiums and Manufactured Homes
Multifamily:	All Multiple Family Parcels Including Duplexes and Triplexes
Forest:	Designated Forest Land and Open Space Timber
Other:	All Remaining Categories Including Vacant Land

Value Change Summary Table - Countywide						
Property Class	Parcel Count	Type†	2019 Total Value	2020 Total Value	Value Change	% Change
Residential	222,065	L:	\$51,928,167,633	\$54,080,208,193	\$2,152,040,560	4.1%
		B:	\$49,828,521,329	\$53,269,953,770	\$3,441,432,441	6.9%
		T:	\$101,756,688,962	\$107,350,161,963	\$5,593,473,001	5.5%
Other	26,944	L:	\$2,561,220,200	\$2,950,361,800	\$389,141,600	15.2%
		B:	\$14,506,100	\$15,065,200	\$559,100	3.9%
		T:	\$2,575,726,300	\$2,965,427,000	\$389,700,700	15.1%
Agriculture	3,334	L:	\$683,470,400	\$716,733,000	\$33,262,600	4.9%
		B:	\$353,661,500	\$378,818,700	\$25,157,200	7.1%
		T:	\$1,037,131,900	\$1,095,551,700	\$58,419,800	5.6%
Multifamily	3,199	L:	\$690,639,700	\$733,120,000	\$42,480,300	6.2%
		B:	\$820,505,600	\$911,024,100	\$90,518,500	11.0%
		T:	\$1,511,145,300	\$1,644,144,100	\$132,998,800	8.8%
Commercial	2,296	L:	\$1,946,267,600	\$2,040,551,600	\$94,284,000	4.8%
		B:	\$2,050,564,300	\$2,047,758,800	-\$2,805,500	-0.1%
		T:	\$3,996,831,900	\$4,088,310,400	\$91,478,500	2.3%
Forest	2,033	L:	\$134,205,300	\$142,944,500	\$8,739,200	6.5%
		B:	\$93,847,300	\$100,444,600	\$6,597,300	7.0%
		T:	\$228,052,600	\$243,389,100	\$15,336,500	6.7%
Industrial	34	L:	\$8,794,300	\$8,892,200	\$97,900	1.1%
		B:	\$6,383,700	\$6,715,400	\$331,700	5.2%
		T:	\$15,178,000	\$15,607,600	\$429,600	2.8%
Totals	259,905	L:	\$57,952,765,133	\$60,672,811,293	\$2,720,046,160	4.7%
		B:	\$53,167,989,829	\$56,729,780,570	\$3,561,790,741	6.7%
		T:	\$111,120,754,962	\$117,402,591,863	\$6,281,836,901	5.7%

†"Type" column codes: L = Land, B = Buildings (Improvements), T = Total

Snohomish County Assessor's Office

Residential Appraisal Management: Countywide



Data and Analysis

Countywide Profiles

Region Profile by Property Class (Use Code)¹⁰

Countywide Profile by Property Class (Use Code)			
Property Class (Use Code)	Parcel Count	Sold Parcels	% Sold
111-Single Family Residence	182,275	9,790	5.37%
910-Undeveloped Land	18,942	319	1.68%
141-SFR Condominium Detached	9,209	806	8.75%
118-Manufac Home (Owned Site)	8,956	321	3.58%
119-Manuf Home (MHP)	6,525	282	4.32%
911-Vacant Site/Mobile Park	4,303		
116-Common Wall SFR	3,500	618	17.66%
122-Duplex	2,673	95	3.55%
830-Open Space Agriculture	2,360	25	1.06%
142-SFR Condominium CommonWall	2,060	189	9.17%
117-Manufac Home (Leased Site)	1,991	15	0.75%
183-Non Residential Structure	1,823	31	1.70%
112-2 Single Family Residences	1,729	62	3.59%
913-Recreational Lot	1,581	20	1.27%
915-Common Areas	1,545		
880-DF Timber Acres Only	1,365		
110-Sr Cit Exemption Residual	743	1	0.13%
198-Vacation Cabins	724	17	2.35%
940-Open Space General	577	9	1.56%
914-Vacant Condominium Lot	400		
121-Duplex converted from SFR	382	9	2.36%
941-Open Space General Ag Cons	361	3	0.83%
912-No Perk Undeveloped Land	354	9	2.54%
691-Religious Activities	332	2	0.60%
456-Local Access Streets	309		
850-Mine Claims Mineral Rights	290		
950-Open Space Timber	282	2	0.71%

Table continued on next page.

¹⁰ The first 2 digits of the property class code conform to the 2 digit land use code standards published in the Washington State Department of Revenue Ratio Procedures Manual, April 1997. This list is ordered by parcel count per use code.

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Property Class (Use Code)	Parcel Count	Sold Parcels	% Sold
916-Water Retention Area	278		
184-Septic System	255	10	3.92%
921-Forest Reserve	238		
761-Parks, General Recreation	214		
189-Other Residential	205	2	0.98%
881-DF Timber Ac w/ ImpAcBldg	193		
935-Saltwater Tidelands	190		
681-Nursery,Primary,Second Sch	187	2	1.07%
411-Railroad Transportation	178		
188-SFR Converted to GroupHome	152	10	6.58%
186-Septic & Well	146	8	5.48%
745-Trails (Centennial, etal)	146		
123-Tri-Plex	136	7	5.15%
939-Other Water Areas	123		
459-Other Highway NEC	121		
889-DF Timber Ac w/ImpAcNoBldg	108		
481-Electric Utility	98		
624-Funeral/Crematory Services	93		
483-Water Util & Irrig & Stg	92		
923-PILT NonCommercial Forest	85		
919-Trans. Development Rights	76		
854-Mining & Quarrying	70		
185-Well	66	7	10.61%
922-Nonreserve Forests	52		
187-Non Res Structure Condo	51	2	3.92%
113-3 Single Family Residences	50	1	2.00%
672-Protective Functions	48		
489-Other utilities, NEC	46		
482-Gas Utility	39		
742-Playgrounds/Athletic Areas	34		
931-Rivers,Streams,Creeks	31		
390-Cannabis Processing	29		
484-Sewage Disposal	26		
749-Other Recreation	24		
818-Farms General	23	2	8.70%
471-Telephone Communication	22		

Table continued on next page.

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Property Class (Use Code)	Parcel Count	Sold Parcels	% Sold
752-Group & Organized camps	22		
451-Freeways	21		
699-Other Misc Services	19		
932-Lakes	16		
461-Automobile Parking (Lot)	15		
115-5+ Single Family Residence	14		
683-Special Training/Schooling	11		
741-Sports Activities	11		
454-Arterial Streets	10		
457-Alleys	10		
723-Public Assembly	10		
762-Parks, Leisure & Ornamenta	10		
769-Other Parks, NEC	10		
822-Animal Husbandry Services	10		
114-4 Single Family Residences	9		
485-Solid Waste disposal	9		
682-Univ,College,Jr College	9		
819-Other Agricultural	8	1	12.50%
711-Cultural Activities	7		
790-Other Cult. Entertainment	7		
849-Other Fishery Activities	7		
744-Marinas	6		
499-Other Transp, Comm, Util.	5		
596-Farm,Garden Supplies	5		
661-General Contract Const	5		
671-Exec,Legislative,Judicial	5		
729-Other Public Assembly	5		
124-Four Plex	4		
132-Mult Family 12-15 units	4		
174-Retirement Home/Orphanages	4		
179-Other Group Quarters	4	1	25.00%
473-Radio Communication	4		
479-Other Communications (NEC)	4		
539-Other Retail Trade	4		
639-Other Business Services	4		
842-Fishery Services	4		

Table continued on next page.

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Property Class (Use Code)	Parcel Count	Sold Parcels	% Sold
855-Mining Services	4		
175-Religious Residence	3		
599-Other Retail Trade	3		
637-Warehouse/Storage Services	3		
641-Automobile Repair Services	3		
860-Cannabis Growing	3		
890-Other Resource Production	3		
145-SFR Condominium Conversion	2		
344-Transportation Equipment	2		
422-Motor Freight Transport.	2		
429-Other Motor Vehicle Transp	2		
491-Oth Pipeline Right-of-Way	2		
511-Motor Vehicle & Auto Equip	2		
519-Other Wholesale Trade NEC	2		
590-Cannabis Products Retail	2		
692-Welfare/Charitable Service	2		
743-Swimming Areas	2		
751-Resorts	2		
816-Farms & Ranches	2		
817-Farms Poultry	2		
933-Bays or Lagoons	2		
154-Mobile Park 101-200 units	1		
160-Hotel/Motel 1-25 Units	1		
242-Sawmills and Planing Mills	1		
339-Other Primary Metal	1		
349-Other Fabricated Metals	1		
439-Other Aircraft Transport	1		
441-Marine Terminals	1		
453-Parkways	1		
455-Collector/Distributor Str.	1		
475-Radio & Television Commun	1		
492-Transportation Services	1		
521-Lumber & Other Bldg Mtls.	1		
542-Meats & Fish	1		
549-Other Retail Food	1		
582-Drinking Places	1		

Table continued on next page.

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Property Class (Use Code)	Parcel Count	Sold Parcels	% Sold
615-Real Estate Services	1		
649-Other Repair Services	1		
659-Other Professional Service	1		
662-Special Const Services	1		
674-Correctional Institutions	1		
719-Other Cultural Activities	1		
721-Entertainment Assembly	1		
722-Sports Assembly	1		
731-Fairgrounds & Amusement Pk	1		
829-Other Ag Related	1		
841-Fisheries & Marine Product	1		
934-Oceans & Seas	1		
Totals:	259,905	12,678	4.88%

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Data and Analysis

Region Profile by Land Type

This list captures only the first land type occurrence for each parcel within ProVal®.

Countywide Profile by Land Type			
Land Type	Parcel Count	Sold Parcels	% Sold
A3 Sewer Avg Homogeneous NH	75,168	4,332	5.76%
A2 Sewer Avg Older Mixed NH	31,270	1,460	4.67%
B2 Septic Average Mixed NH	22,518	1,100	4.88%
G4 Septic/Well Avg Nbhd	18,557	659	3.55%
NA*	15,715	298	1.90%
B4 Septic Average NH	13,901	510	3.67%
A4 Sewer Average Plus NH	12,780	880	6.89%
C2 SFR Condo Det Avg NH -141	8,784	758	8.63%
A6 Sewer Good Homogenous NH	7,997	427	5.34%
A1 Sewer Fair NH	5,708	282	4.94%
B6 Septic Good Homogenous NH	4,475	360	8.04%
UD Undevelopable Land	3,144	4	0.13%
A7 Sewer Very Good NH	3,052	124	4.06%
88 Contiguous-less than 1 acre	2,615	1	0.04%
C6 SFR Commonwall - UC 116	2,572	359	13.96%
D1 Damaged Septic	2,387	4	0.17%
A5 Sewer Good Older Mixd NH	2,339	97	4.15%
CA Common Areas	1,945		
B1 Septic Fair NH	1,810	97	5.36%
C4 Condo Cmnwall@LivArea - 142	1,720	144	8.37%
14 US Forest Land	1,604	1	0.06%
21 Designated Forest	1,452		
B5 Septic UGA	1,348	37	2.74%
AG AG-10 FHZ	1,267	10	0.79%
G6 Spt/Well Good Nbhd	1,264	64	5.06%
F1 SFR Cmnwall MidUnit - 116	1,240	279	22.50%
G2 Septic/Well Fair Nbhd	1,191	51	4.28%
B3 Septic - Access DNA Devlpm	898	35	3.90%
O3 Avg Location	828	23	2.78%
24 Open Space Ag	792		
R2 Rec Site Unbuildable - Fair	759	15	1.98%
R1 Rec Site Unbuildable - Low	699	4	0.57%

*N/A: Building Only Accounts (Parcels with No Land)

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Snohomish County Assessor's Office

Residential Appraisal Management: Countywide



Data and Analysis

Land Type	Parcel Count	Sold Parcels	% Sold
A9 Exception Plat	595	53	8.91%
B7 Septic VG NH	593	18	3.04%
W2 Wtrfrt/View Type II	574	11	1.92%
C3 SFR Condo Det Avg+ NH-141	372	22	5.91%
D2 Damaged Sewer	351	2	0.57%
C5 Condo Cmnwall@Gar UC 142	321	19	5.92%
L3 Lake Front 15000 SF	321	14	4.36%
L2 Lake Front 10000 SF	319	10	3.13%
C1 SFR CondoDet Fair NH UC 141	304	13	4.28%
L1 Lake Front 4000 SF	253	16	6.32%
O2 Fair Location	224	4	1.79%
U3 Waterfront III	222	4	1.80%
23 Open Space General	219		
81 Tidelands	207		
L4 Lake Front 20000 SF	202	6	2.97%
SC SrCit Residual Contiguous	198		
U5 Waterfront V	192	7	3.65%
C9 Exception Condo/SFR	186	13	6.99%
U1 Waterfront I	185	4	2.16%
86 Utility Easement (P/L)	181		
W1 Wtrfrt/View Type I	175		
MN Mining	168		
L9 Lake Front 43560 SF	156	4	2.56%
L5 Lake Front 25000 SF	147		
G1 Septic/Well No Power	145	5	3.45%
A8 Sewer Excellent NH	139	9	6.47%
22 Open Space Forest	108		
L6 Lake Front 30000 SF	100	4	4.00%
61 Exception	90		
U2 Waterfront II	87	4	4.60%
O4 Good Location	77		
B9 Septic Pub Water Exception	75	14	18.67%
DV PDR TDR & Lot Status Certs	75		
L7 Lake Front 35000 SF	70	2	2.86%
R3 Rec Site Unbuildable - Avg	64		
UW - Lake Bottom	62		

*N/A: Building Only Accounts (Parcels with No Land)

Table continued on next page.

Snohomish County Assessor's Office
Residential Appraisal Management: Countywide



Data and Analysis

Land Type	Parcel Count	Sold Parcels	% Sold
U9 Waterfront IX	61	1	1.64%
U8 Waterfront VIII	43	1	2.33%
U7 Waterfront VII	40		
O1 Poor Location	39		
L8 Lake Front 40000 SF	31	1	3.23%
C8 Condo Cmnwall MidUnit - 142	25	2	8.00%
84 Pipeline Easement	18		
67 Remote/No Power	17		
83 Swamp	17		
4 Septic Site	13		
C Contiguous	12		
U6 Waterfront VI	9		
46 Spt/Well Site	5		
59 Other Acreage Type	5		
R Reference Acct	2		
R6 Rec Site Buildable - Fair	2		
U4 Waterfront IV	2		
W4 Wtrfrt/View Type IV	2		
W5 Wtrfrt/View Type V	2		
25 Designated Forest	1		
LF Land detail not used	1		
LL Land Type Not Defined	1		
W6 Wtrfrt/View Type VI	1		
Totals:	259,905	12,678	4.88%

Snohomish County Assessor's Office

Residential Appraisal Management: Countywide



Data and Analysis

Region Profile by House Style (Stories)

This table includes detached and attached single-family residences, condominiums, townhomes, duplexes, triplexes, and manufactured homes.

Countywide Profile by House Style (Stories)			
House Style (Stories)	Parcel Count	Sold Parcels	% Sold
11 - 1 Story	61,775	2,986	4.83%
12 - 1 Story Bsmt	15,598	703	4.51%
14 - 1 1/2 Story	6,044	275	4.55%
15 - 1 1/2 Story Bsmt	3,382	142	4.20%
17 - 2 Story	72,590	4,913	6.77%
18 - 2 Story Bsmt	7,132	412	5.78%
20 - 2+ Story	4,018	733	18.24%
21 - 2+ Story Bsmt	134	11	8.21%
23 - Split Entry	21,472	983	4.58%
24 - Tri Level	9,757	454	4.65%
26 - Quad Level	58	3	5.17%
27 - Multi Level	22	2	9.09%
71 - DW Manuf. Home	11,840	486	4.10%
72 - DWB Manuf. Home	50	2	4.00%
74 - SW Manuf. Home	4,934	121	2.45%
75 - SWB Manuf. Home	2		
77 - TW Manuf. Home	457	21	4.60%
78 - TWB Manuf. Home	1		
96 - Geodesic Dome	38	1	2.63%
N/A*	40,601	430	1.06%
Totals:	259,905	12,678	4.88%

*N/A: Land Only Accounts or Miscellaneous Structures (Barns, Sheds, etc.)

Snohomish County Assessor's Office

Residential Appraisal Management: Countywide



Data and Analysis

Region Profile by House Quality (Grade)

Countywide Profile by House Quality (Grade)			
Quality (Grade)	Parcel Count	Sold Parcels	% Sold
75 Excellent	427	27	6.32%
65 Very Good	4,740	198	4.18%
55 Good	22,868	1,011	4.42%
49 Avg Plus	34,411	2,061	5.99%
45 Average	107,259	6,246	5.82%
41 Avg Minus	14,878	1,057	7.10%
35 Fair	29,278	1,450	4.95%
25 Low	4,832	186	3.85%
15 Sub Std	616	13	2.11%
N/A*	40,596	429	1.06%
Totals:	259,905	12,678	4.88%

*N/A: Land Only Accounts or Miscellaneous Structures (Barns, Sheds, etc.)

Region Profile by Year Built Range

This table includes detached and attached single-family residences, condominiums, townhomes, duplexes, triplexes, and manufactured homes.

Countywide Profile by Year Built Range			
Year Built Range	Parcel Count	Sold Parcels	% Sold
2010 - current	23,996	3,446	14.36%
2000 - 2009	41,450	2,132	5.14%
1990 - 1999	40,078	1,820	4.54%
1980 - 1989	29,499	1,187	4.02%
1970 - 1979	28,689	1,183	4.12%
1960 - 1969	23,884	1,045	4.38%
1950 - 1959	14,235	627	4.40%
1940 - 1949	5,294	248	4.68%
1930 - 1939	2,816	133	4.72%
1920 - 1929	4,308	188	4.36%
1910 - 1919	2,888	142	4.92%
1900 - 1909	1,788	77	4.31%
1899 & older	340	15	4.41%
N/A*	40,640	435	1.07%
Totals:	259,905	12,678	4.88%

*N/A: Land Only Accounts or Miscellaneous Structures (Barns, Sheds, etc.)

Snohomish County Assessor's Office

Residential Appraisal Management: Countywide



Data and Analysis

Region Profile by Total Living Area Range

This table includes detached and attached single-family residences, condominiums, townhomes, duplexes, triplexes, and manufactured homes.

Countywide Profile by Total Living Area Range			
Total Living Area	Parcel Count	Sold Parcels	% Sold
5000 - Over	1,037	51	4.92%
4750 - 4999	357	13	3.64%
4500 - 4749	523	31	5.93%
4250 - 4499	724	38	5.25%
4000 - 4249	1,177	62	5.27%
3750 - 3999	1,719	117	6.81%
3500 - 3749	3,103	204	6.57%
3250 - 3499	4,982	304	6.10%
3000 - 3249	7,416	440	5.93%
2750 - 2999	10,563	683	6.47%
2500 - 2749	15,490	1,026	6.62%
2250 - 2499	19,863	1,193	6.01%
2000 - 2249	26,138	1,432	5.48%
1750 - 1999	30,339	1,570	5.17%
1500 - 1749	31,762	1,697	5.34%
1250 - 1499	27,179	1,358	5.00%
1000 - 1249	20,470	928	4.53%
750 - 999	10,566	364	3.45%
500 - 749	3,440	82	2.38%
1 - 499	1,783	31	1.74%
N/A*	41,274	1,054	2.55%
Totals:	259,905	12,678	4.88%

**N/A: Land Only Accounts or Miscellaneous Structures (Barns, Sheds, etc.)*

Sale Verifications

Of the population of the sales used in the analysis, the number of sales of single-family residences (Use codes 111, 116, 141 & 142) reviewed, and the inspection type performed, are summarized below:

Countywide Sale Verifications	
Type	Volume
Field Inspection - exterior only	6,097
On-line review only	3,452
New Construction - on site visit	1,511
Field Inspection - interior inspection	30
Bank to Person	10
No notation	9
Phone	1
Total	11,110

Valuation Model Performance Statistics by Benchmark

Valuation Model Performance Statistics

Adjusted For Changes in Market Conditions over Time

Use codes included in this analysis:

- Use Code 111 – Single-family Residence Detached
- Use Code 116 – Single-family Residence Attached
- Use Code 141 – Single-family Residence Detached / Condominium
- Use Code 142 – Single-family Attached / Condominium (Row House Style)

Snohomish County Assessor's Office

Residential Appraisal Management: Countywide

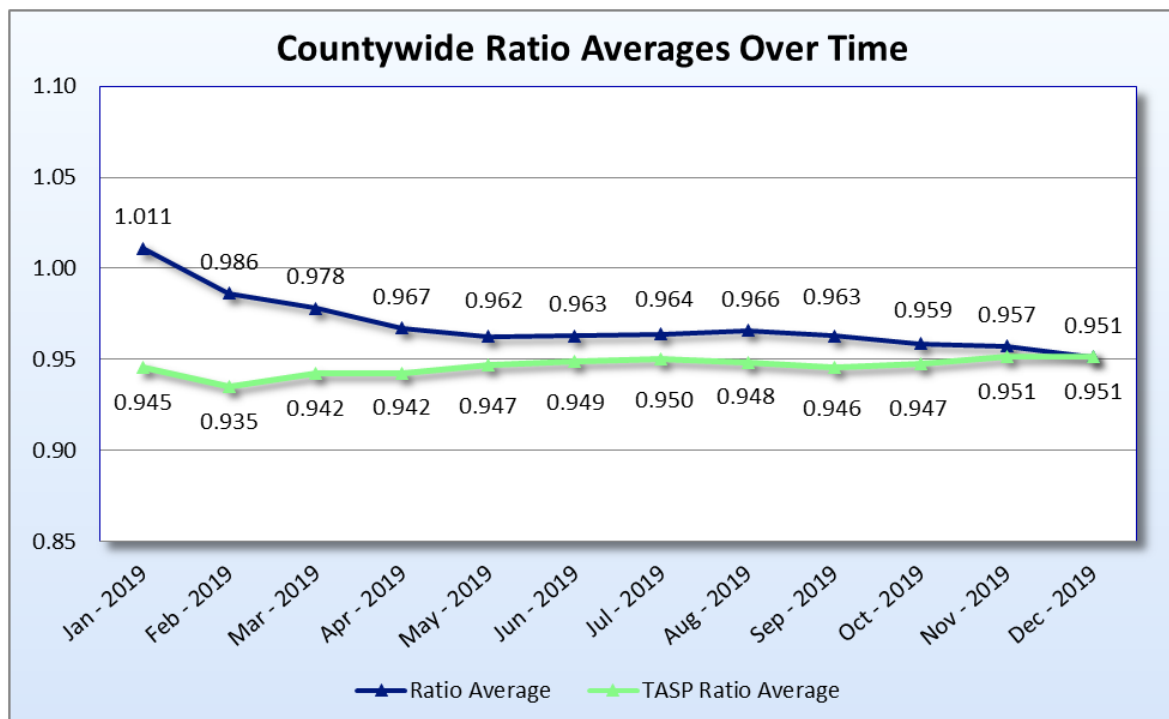


Data and Analysis

Ratio Averages over Time

'Ratio' is revaluation assessed value divided by non-time-trended sale price. "TASP Ratio" is the revaluation assessed value divided by time-trended sale price. The table below compares the two on a month-by-month basis.

Countywide Ratio Averages Over Time		
Sale Month/Year	Ratio Average	TASP Ratio Average
Jan - 2019	1.011	0.945
Feb - 2019	0.986	0.935
Mar - 2019	0.978	0.942
Apr - 2019	0.967	0.942
May - 2019	0.962	0.947
Jun - 2019	0.963	0.949
Jul - 2019	0.964	0.950
Aug - 2019	0.966	0.948
Sep - 2019	0.963	0.946
Oct - 2019	0.959	0.947
Nov - 2019	0.957	0.951
Dec - 2019	0.951	0.951
Total	0.968	0.946



Note: A decreasing non-time-adjusted ratio indicates increasing sale prices.



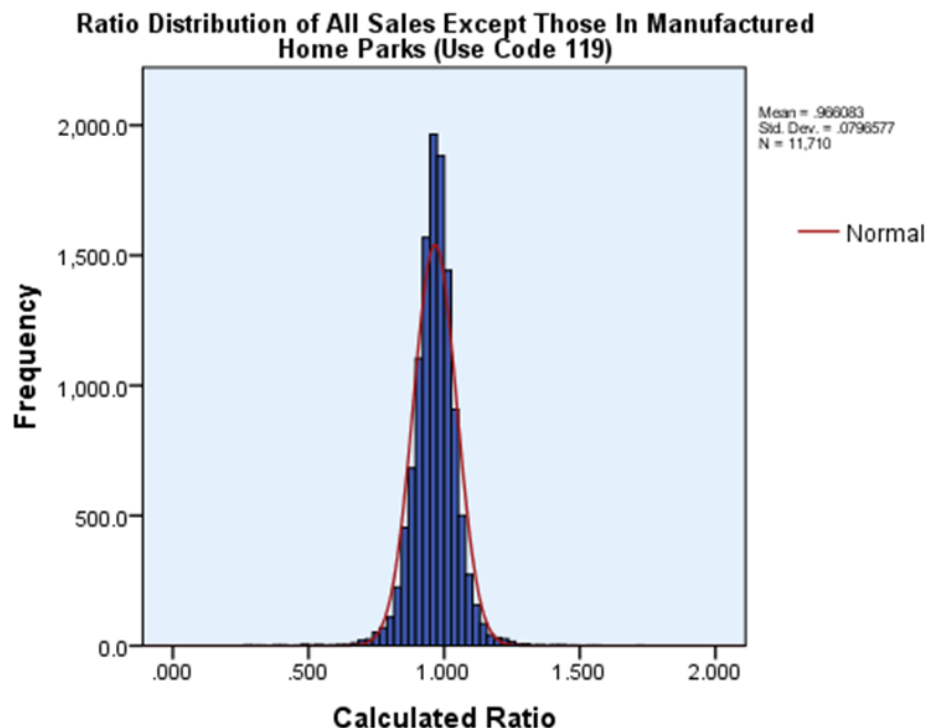
Valuation Model Performance Statistics by Region¹¹

Valuation Model Performance Statistics for All Sales of All Use Codes

(Except Manufactured Homes in Parks)

Ratio Statistics for Calculated Total/Consideration						
All Sales of All Use Codes (Except 119, Manufactured Homes in Parks)						
Region	Count	Mean	Median	Weighted Mean	Price-Related Differential	Coefficient of Dispersion
1	2,954	0.965	0.967	0.960	1.006	6.00%
2	3,427	0.956	0.958	0.955	1.001	5.60%
3	3,499	0.984	0.982	0.978	1.006	5.30%
4	1,807	0.952	0.958	0.953	0.999	6.80%
Ag	23	0.917	0.936	0.924	0.992	10.80%
Totals	11,710	0.966	0.968	0.964	1.002	5.90%

*Note: The sales used for this ratio study **are not** adjusted for time.*



¹¹ For individual benchmark results, see individual region reports.

Snohomish County Assessor's Office

Residential Appraisal Management: Countywide



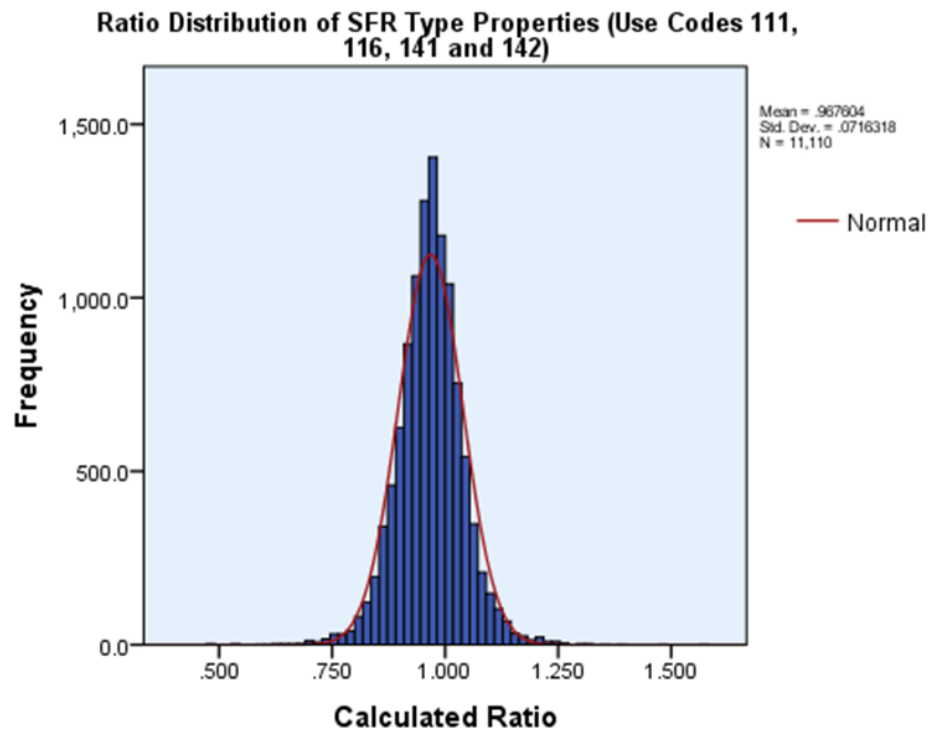
Data and Analysis

Valuation Model Performance Statistics for Sales of Use Codes 111, 116, 141, & 142

Ratio Statistics for Calculated Total/Consideration						
Sales of SFR-type Homes* (Use Codes 111, 116, 141 and 142)						
Region	Count	Mean	Median	Weighted Mean	Price-Related Differential	Coefficient of Dispersion
1	2,848	0.966	0.968	0.961	1.006	5.90%
2	3,260	0.956	0.959	0.956	1.000	5.30%
3	3,413	0.984	0.982	0.979	1.005	5.10%
4	1,580	0.957	0.960	0.958	0.999	5.70%
Ag	9	0.930	0.970	0.925	1.005	5.60%
Totals	11,110	0.968	0.969	0.966	1.002	5.50%

Note: The sales used for this ratio study **are not** adjusted for time.

*Single Family Residences include Condominiums.



Snohomish County Assessor's Office

Residential Appraisal Management: Countywide

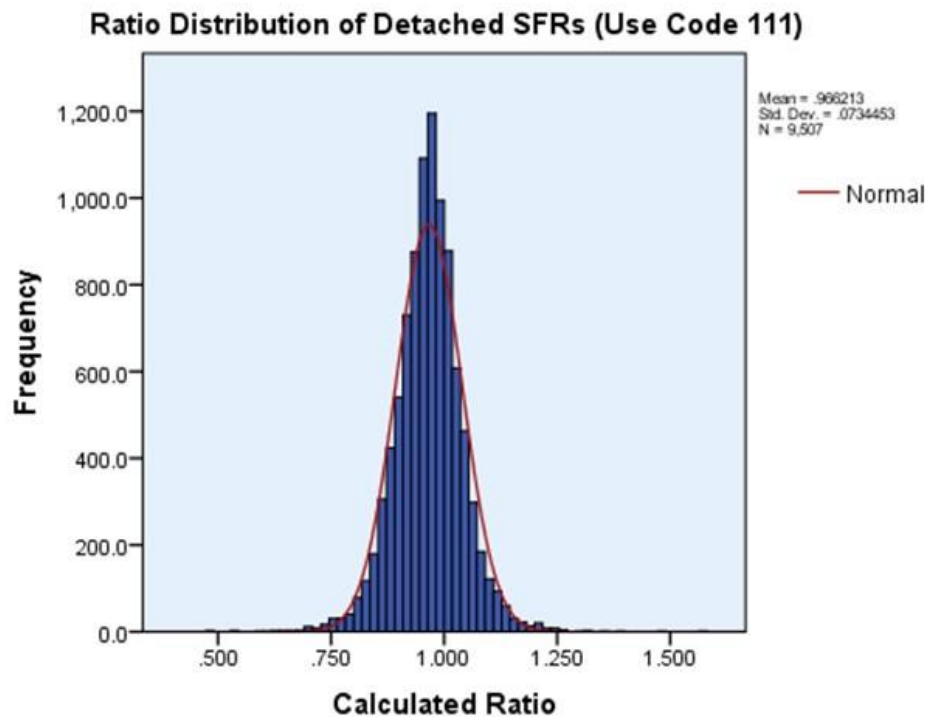


Data and Analysis

Valuation Model Performance Statistics for Use Code 111 Sales

Ratio Statistics for Calculated Total/Consideration						
Sales of Use Code 111 (Single Family Residences)						
Region	Count	Mean	Median	Weighted Mean	Price Related Differential	Coefficient of Dispersion
1	2,327	0.965	0.968	0.959	1.007	6.20%
2	2,953	0.956	0.959	0.956	1.000	5.30%
3	2,655	0.983	0.981	0.978	1.005	5.20%
4	1,563	0.957	0.960	0.958	0.999	5.70%
Ag	9	0.930	0.970	0.925	1.005	5.60%
Totals	9,507	0.966	0.968	0.964	1.002	5.60%

*Note: The sales used in this study **are not** adjusted for time.*



Snohomish County Assessor's Office

Residential Appraisal Management: Countywide

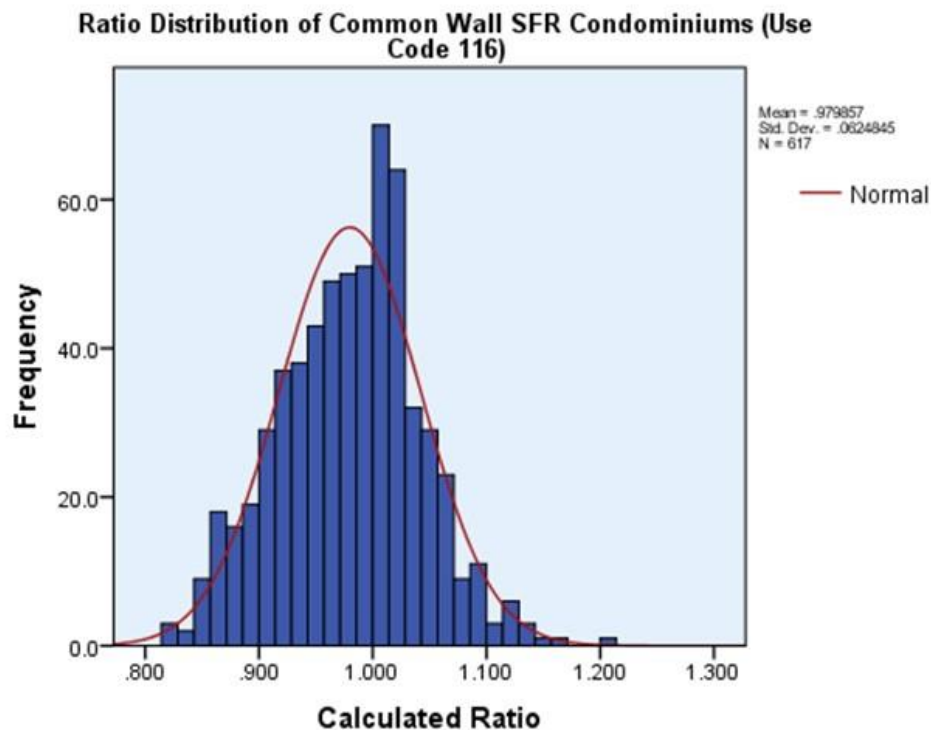


Data and Analysis

Valuation Model Performance Statistics for Use Code 116 Sales

Ratio Statistics for Calculated Total/Consideration						
Sales of Use Code 116 (Common Wall SFRs)						
Region	Count	Mean	Median	Weighted Mean	Price Related Differential	Coefficient of Dispersion
1	201	0.962	0.960	0.961	1.002	4.90%
2	28	0.968	0.965	0.964	1.004	6.00%
3	381	0.990	0.998	0.987	1.004	4.70%
4	7	0.962	0.952	0.954	1.008	6.90%
Totals	617	0.980	0.984	0.978	1.002	5.10%

Note: The sales used in this study are not adjusted for time.



Snohomish County Assessor's Office

Residential Appraisal Management: Countywide

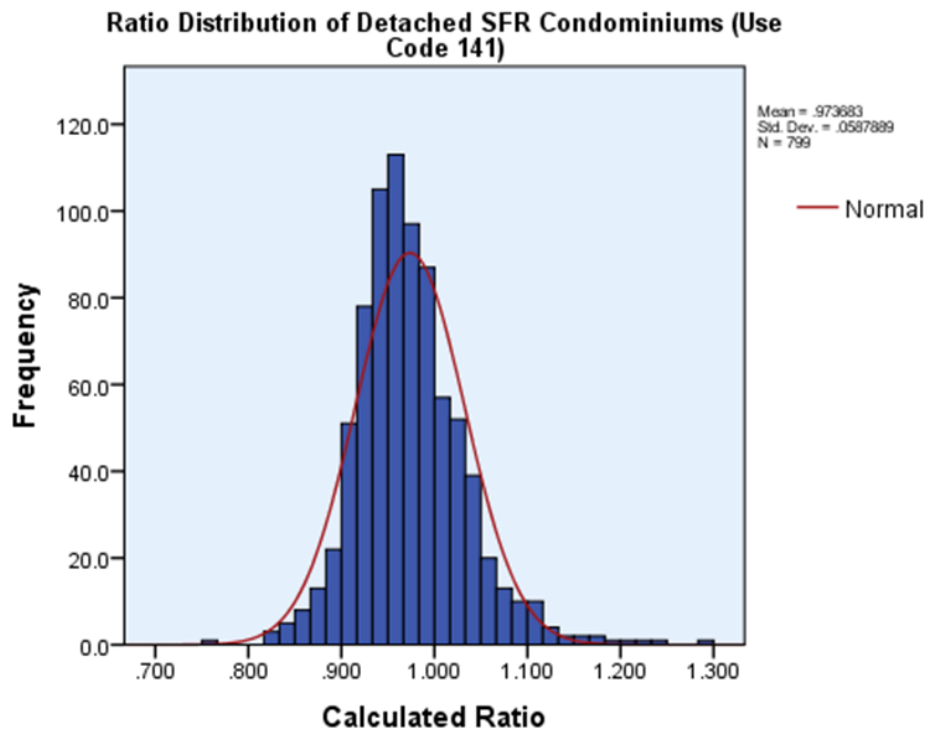


Data and Analysis

Valuation Model Performance Statistics for Use Code 141 Sales

Ratio Statistics for Calculated Total/Consideration						
Sales of Use Code 141 (Detached Condominiums)						
Region	Count	Mean	Median	Weighted Mean	Price Related Differential	Coefficient of Dispersion
1	269	0.979	0.971	0.976	1.003	4.30%
2	207	0.953	0.945	0.955	0.998	4.40%
3	320	0.983	0.973	0.979	1.005	4.60%
4	3	0.938	0.899	0.930	1.008	5.20%
Totals	799	0.974	0.967	0.973	1.001	4.50%

***Note:** The sales used in this study **are not** adjusted for time.*



Snohomish County Assessor's Office Residential Appraisal Management: Countywide

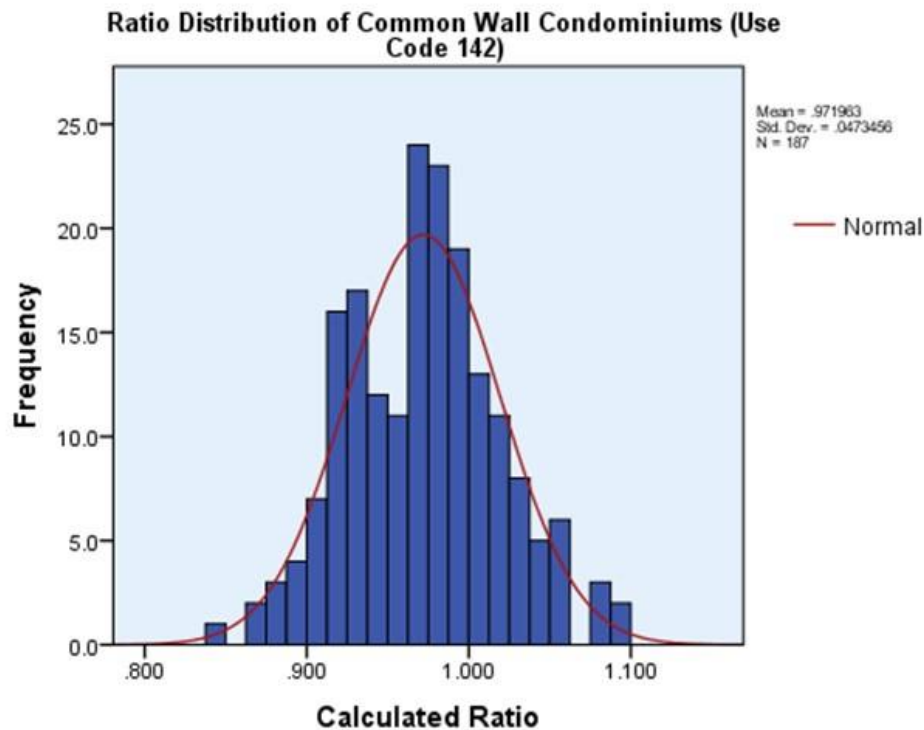


Data and Analysis

Valuation Model Performance Statistics for Use Code 142 Sales

Ratio Statistics for Calculated Total/Consideration						
Sales of Use Code 142 (Common Wall Condominiums)						
Region	Count	Mean	Median	Weighted Mean	Price Related Differential	Coefficient of Dispersion
1	51	0.965	0.967	0.963	1.002	2.80%
2	72	0.964	0.973	0.963	1.001	3.90%
3	57	0.993	0.999	0.990	1.003	4.00%
4	7	0.931	0.914	0.932	0.999	2.20%
Totals	187	0.972	0.974	0.971	1.001	3.80%

*Note: The sales used in this study **are not** adjusted for time.*



Snohomish County Assessor's Office

Residential Appraisal Management: Countywide



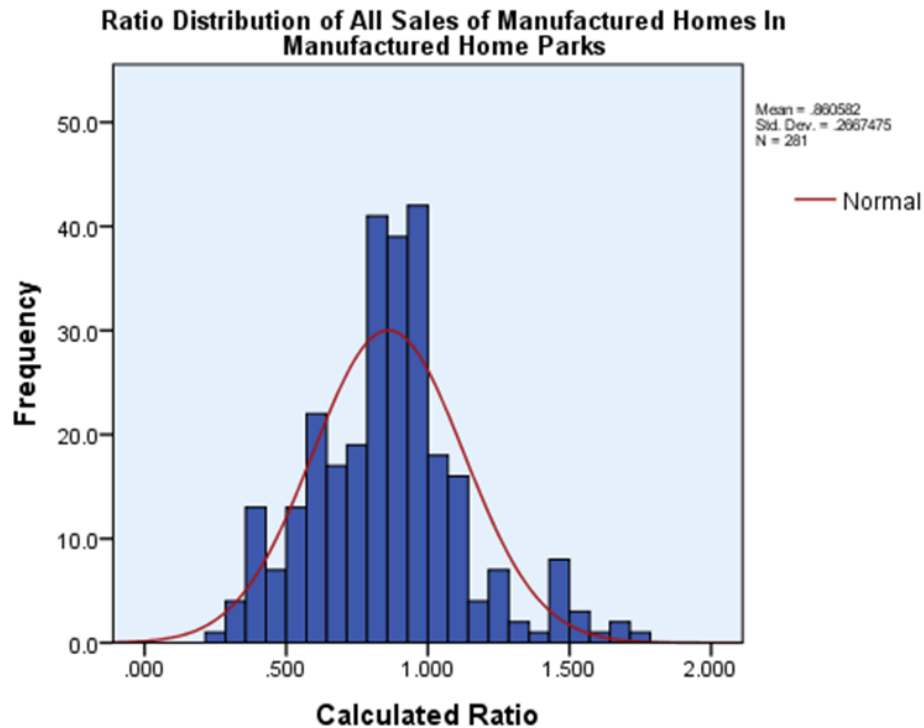
Data and Analysis

Valuation Model Performance Statistics for Use Code 119 Sales

The dispersion in sales prices for Manufactured Homes located in manufactured home parks is considerably greater than that for other residential property types. Due to this difference, the statistics for manufactured homes located in parks are reported separately from the region as a whole.

Ratio Statistics for Calculated Total/Consideration						
Sales of Use Code 119 (Manufactured Homes in Parks)						
Region	Count	Mean	Median	Weighted Mean	Price Related Differential	Coefficient of Dispersion
1	85	0.881	0.856	0.843	1.046	24.50%
2	98	0.805	0.839	0.824	0.977	22.30%
3	90	0.894	0.898	0.865	1.034	22.10%
4	8	0.943	0.876	0.946	0.997	17.90%
Totals	281	0.861	0.860	0.845	1.018	23.00%

Note: The sales used in this study are not adjusted for time.



Snohomish County Assessor's Office

Residential Appraisal Management: Countywide

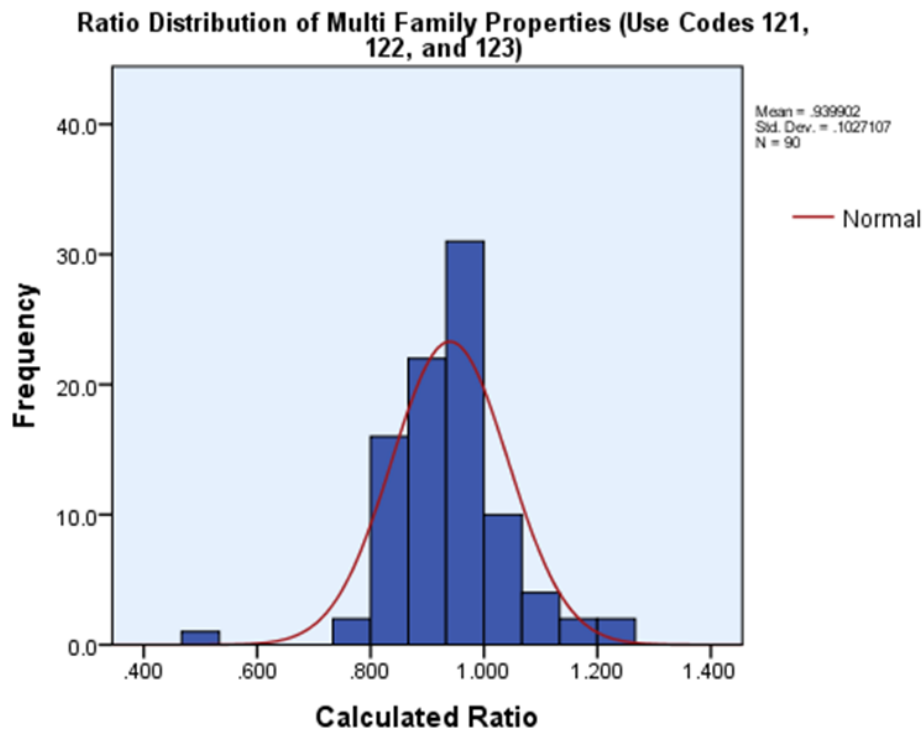


Data and Analysis

Valuation Model Performance Statistics Sales of Use Codes 121, 122 & 123

Ratio Statistics for Calculated Total/Consideration						
Sales of Use Codes 121, 122 & 123 (Multi-Family Dwellings)						
Region	Count	Mean	Median	Weighted Mean	Price Related Differential	Coefficient of Dispersion
1	47	0.944	0.938	0.942	1.002	8.00%
2	25	0.935	0.942	0.932	1.004	5.30%
3	14	0.938	0.945	0.914	1.026	10.60%
4	4	0.930	0.923	0.934	0.995	7.40%
Totals	90	0.940	0.940	0.934	1.007	7.70%

*Note: The sales used in this study **are not** adjusted for time.*



Snohomish County Assessor's Office

Residential Appraisal Management: Countywide



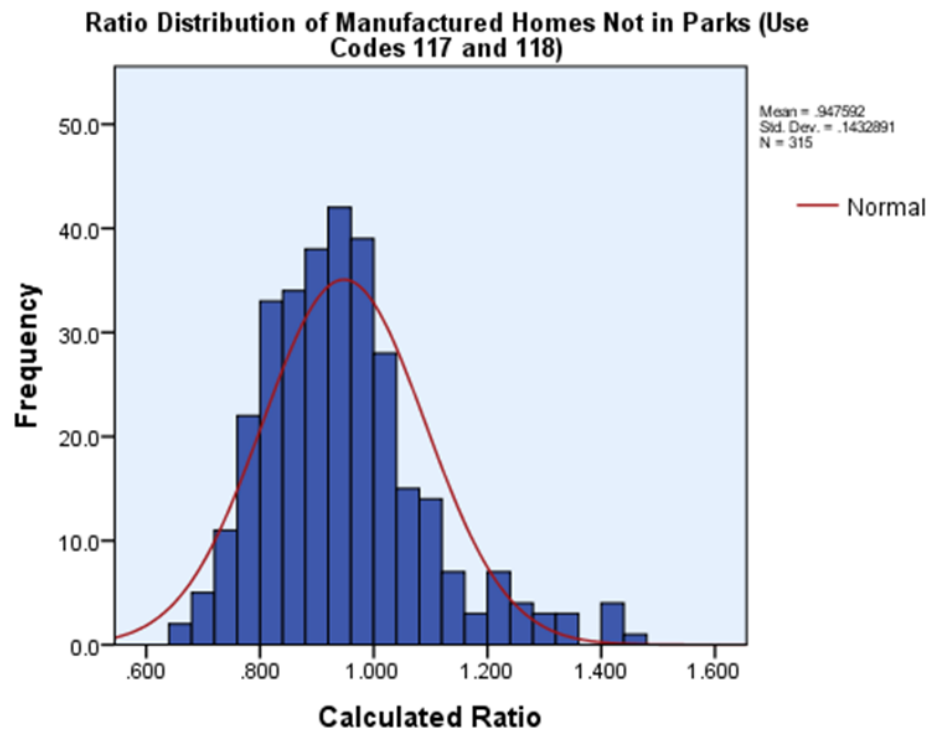
Data and Analysis

Valuation Model Performance Statistics for Use Codes 117 & 118 Sales

(Manufactured Homes Not In Parks: 117 – leased site, 118 – owned site)

Ratio Statistics for Calculated Total/Consideration						
Sales of Use Codes 117 & 118 (Manufactured Homes on Leased & Owned Sites)						
Region	Count	Mean	Median	Weighted Mean	Price Related Differential	Coefficient of Dispersion
1	13	0.933	0.954	0.940	0.993	4.80%
2	98	0.958	0.935	0.938	1.021	11.10%
3	46	1.012	0.999	0.988	1.025	11.20%
4	156	0.924	0.915	0.911	1.014	12.10%
Ag	2	0.913	0.913	0.915	0.998	2.40%
Totals	315	0.948	0.934	0.933	1.016	11.50%

*Note: The sales used in this study **are not** adjusted for time.*



Summary of Value Change

The Summary of Value Change table below reflects the aggregate change in value for ALL parcels that existed in the study area at the time the study was conducted. Value Change and Percent (%) Change includes the value for new parcels that were created and assessed for the first time in the current assessment year that did not exist in the prior assessment year.

Number of Parcels Appraised: 259,905

	Land	Improvements	Total
2020 Assessment Year	\$60,672,811,293	\$56,729,780,570	\$117,402,591,863
2019 Assessment Year	\$57,952,765,133	\$53,167,989,829	\$111,120,754,962
Value Change	\$2,720,046,160	\$3,561,790,741	\$6,281,836,901
Percent Change	4.7%	6.7%	5.7%

Data Sources

All data in this report was summarized from pre-certification Residential Characteristics extracts and/or Abstract Reports dated May 31, 2020.

Endnotes

Regarding the Coefficient of Price-Related Bias

The Coefficient of Price-Related Bias (PRB) indicates the percentage by which assessment ratios change whenever values are doubled or halved.

For example, a PRB of $-.03$ would mean that assessment levels fall by 3% when value doubles. The PRB should range between -0.05 and $+0.05$. PRBs outside the range of -0.10 to $+0.10$ are considered unacceptable.¹²

Put another way, price-related bias (PRB) is a measure of vertical equity which quantifies the relationship between property values and ratios (assessment levels) by regressing percentage differences from the median assessment ratio on percentages from the median value. The analysis also quantifies the statistical strength or significance of the relationship. Price-related bias may be noted when the PRB coefficient is less than -0.03 or greater than 0.03 , and the relationship is statistically significant at the 95% confidence level.¹³

The dependent variable in the analysis is:

$$\frac{(\text{ratio} - \text{median ratio})}{\text{median ratio}}$$

The independent variable makes use of a property value proxy (abbreviated *value* below) computed as follows:

$$\frac{\ln(\text{value})}{0.693}$$

Where *value* is one-half of sale price plus one-half of appraised value to minimize statistical bias that would overstate the degree of regressivity (or understate the degree of progressivity):

$$\text{Value} = (0.50 \times \text{appraised value}) + (0.50 \times \text{sale price})$$

The use of logarithms converts the value proxy to percentages, and division by 0.693 (the natural logarithm of 2) permits each doubling of value to be associated with an increment of 1.

T-statistics quantify the statistical reliability of any observed bias. The t statistic is the coefficient divided by its standard error, or a measure of how strongly a particular independent variable explains variations in the dependent variable.

The PRB coefficient in this report was derived using IBM® SPSS® statistical software.

Glossary of Terms

A glossary of terms used in property appraisal and assessment is published by the IAAO, and can be found at this link:
http://www.iaao.org/media/Glossary_Ed2_Web/index.html

¹² International Association of Assessing Officers, Glossary for Property Appraisal and Assessment, Chicago, 2013

¹³ Gloudemans, R., The Coefficient of Price-Related Bias: A Measure of Vertical Equity. Fair & Equitable 9 (11): 3-8.